

AMENDMENTS TO THE CLAIMS:

[Claims 7-10, 12, 15-17, 19 and 32 have been cancelled. Claims 1-6, 11, 13, 14, 18, 20-25, 27-29 and 31 have been amended.]

This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): A semiconductor device manufacturing apparatus that uses a thermal CVD reaction to deposit a film onto a substrate, said apparatus having a vaporizer for vaporizing a raw material to form a vapor phase deposition material, and a power supply means that supplies electric current for supplying a d.c. electrical potential to said substrate or said film deposited thereupon orienting the crystal of said vapor phase material in the direction of the electrical field induced in said d.c. electrical potential.

Claim 2 (currently amended): A semiconductor device manufacturing apparatus according to claim 1, wherein said power supply means supplies said electric current d.c. electrical potential to said substrate or said film deposited thereupon, either directly or indirectly.

Claim 3 (currently amended): A semiconductor device manufacturing apparatus according to claim 2, wherein said power supply means comprises a power supply source and a electrode terminals which is are connected to said power supply source and to said substrate or said film deposited thereupon.

Claim 4 (currently amended): A semiconductor device manufacturing apparatus according to claim 2, wherein said power supply means further comprises a current controlling means d.c. electrical potential controller which controls said current potential to be supplied to said substrate or said film deposited thereupon.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 5 (currently amended): A semiconductor device manufacturing apparatus according to claim 4, wherein said ~~current controlling means~~ d.c. electrical potential controller controls said current potential to be supplied to said substrate or said film deposited thereupon, either continuously or intermittently.

Claim 6 (currently amended): A semiconductor device manufacturing apparatus according to claim 3 4, wherein said electrode terminals are provided on peripheral area of either said substrate or a region on which said film being deposited on said substrate.

Claims 7-10 (cancelled)

Claim 11 (currently amended): A semiconductor device manufacturing apparatus according to claim 4, wherein said ~~current controlling means~~ d.c. electrical potential controller controls said voltage applied to at least one of said a pair of electrode terminal units so as to change said voltage value, either continuously or intermittently with respect to the time elapsing.

Claim 12 (cancelled)

Claim 13 (currently amended): A semiconductor device manufacturing apparatus according to claim 4, wherein said ~~current controlling means~~ d.c. electrical potential controller further includes a ~~detecting means~~ detector for detecting either one of current potential and voltage applied to said substrate or said film deposited thereupon whereby said ~~current controlling means~~ d.c. electrical potential controller controls the value of either said current potential or said voltage in response to a result of said ~~detecting means~~ detector.

Claim 14 (currently amended): A semiconductor device manufacturing apparatus according to claim 4, said apparatus further provided with a temperature controlling means for controlling the temperature of said electrode terminal units and wherein said ~~current controlling means~~ d.c. electrical potential controller further includes a ~~detecting means~~ detector for detecting

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130 W. CUSHING ST.
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FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

either one of ~~current potential~~ and voltage applied to said substrate or said film deposited thereupon whereby said temperature ~~controlling means~~ controller controls a temperature ~~controlling means~~ so as to change a temperature of said substrate or said film deposited thereupon, in response to a result of said ~~detecting means~~.

Claims 15-17 (cancelled)

Claim 18 (currently amended): A semiconductor device manufacturing apparatus according to claim 2, wherein said power supply ~~means~~ comprises a power supply source and ~~an~~ a non-contact electric current supplying means electrical potential supply which is connected to said power supply source ~~means~~ and supplying said ~~current d.c. electrical potential~~ to said substrate or said film deposited thereupon, without making said ~~current supplying means~~ potential supply to be directly connected thereto.

Claim 19 (cancelled)

Claim 20 (currently amended): A semiconductor device manufacturing apparatus according to claim 18, wherein said power supply ~~means~~ further comprises a ~~current controlling means~~ potential controller which controls value of said current potential to be applied to said non-contact ~~electric current supplying means~~ electrical potential supply.

Claim 21 (currently amended): (Amended) A semiconductor device manufacturing method for depositing a film on a substrate by a thermal CVD reaction, wherein ~~a raw material is vaporized to form a vapor phase deposition material~~, and said film is deposited on a said substrate while a ~~current d.c. electrical potential~~ is applied to said substrate or film deposited thereupon, for orienting the crystal of said vapor phase material in the direction of the electrical field induced by said d.c. electrical potential.

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175 CANAL STREET
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Claim 22 (currently amended): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while the d.c. electrical potential on said substrate or film deposited thereupon is arbitrarily set.

Claim 23 (currently amended): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while the ~~electric current~~ d.c. electrical potential is applied to said substrate or said film deposited thereupon, intermittently.

Claim 24 (currently amended): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while ~~either one of said voltage value and said current value~~ d.c. electrical potential is varied either intermittently or continuously.

Claim 25 (currently amended): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while a direction of said ~~current flowed through~~ d.c. electrical potential applied to said substrate or said film deposited thereupon, is changed, either intermittently or continuously.

Claim 26 (original): A semiconductor device manufacturing method according to claim 21, wherein said film is deposited while a temperature of said substrate or of said film deposited thereupon, is varied.

Claim 27 (currently amended): A semiconductor device manufacturing method apparatus according to claim 21, wherein either one of said voltage value and said current potential value is varied either intermittently or continuously.

Claim 28 (currently amended): A semiconductor device manufacturing method according to claim ~~11~~ 21, wherein said film is deposited while setting the potential of said substrate or film deposited thereupon to a ground potential.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 29 (currently amended): A semiconductor device manufacturing method for depositing a film on a substrate by a thermal CVD reaction, wherein a ~~current or a d.c. electrical~~ potential is applied to said substrate or film deposited thereupon without making contact with said substrate or film deposited thereupon, for orienting the crystal of aid vapor phase material in the direction of the electrical field induced by said d.c. electrical potential.

Claim 30 (original): A semiconductor device manufacturing method according to claim 29, wherein magnetic flux is applied to said substrate or film deposited thereupon.

Claim 31 (currently amended): A semiconductor device manufacturing method comprising:

a step of depositing a film into a substrate using a thermal CVD reaction; and
a step of depositing a film ~~by using from~~ a thermal CVD reaction ~~as a current is applied~~ by applying a d.c. electrical potential to either one of said substrate and said deposited film, for orienting the crystal of aid vapor phase material in the direction of the electrical field induced by said d.c. electrical potential.

Claim 32 (cancelled)

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

—
175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

AMENDMENTS TO THE DRAWINGS:

The attached sheets of drawings include changes to FIGS. 1, 2, 3, 4, 5 and 6. These sheets replace the original FIGS. 1, 2, 3, 4, 5 and 6. Annotated copies of the amended Figures are attached for the Examiner's convenience.

HAYES SOLOWAY P.C.
130 W. CUSHING ST.
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

—
175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567